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09/627,139	07/27/2000	J. David Schaffer	US000179	1204

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EXAMINER

HUYNH, SON P

ART UNIT	PAPER NUMBER
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2611

DATE MAILED: 08/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/627,139

Applicant(s)

SCHAFER ET AL.

Examiner

Son P Huynh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 July 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 July 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 7-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In line 1 of claims 7 and 8, the phrase "said input vectors" lacks of antecedent basis.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Herz et al. (US 6,088,722).

Regarding claim 1, Herz discloses head end 502 connected to multiple program sources 402 to receive program data, the head end also connected to multiple subscribers stations to transmit data to subscribers. The head end also receives demographic data and other information such as active feedback (customers actually rate how much they like particular programs), and passive feedback, (system automatically stores information of the watched programs). The head end stores demographic information, active feedback and passive feedback as customer's profiles in memory 508. The head end then compares the customer's profile and content profile of video programs to generate agreement matrices which establish the degree of correlation between the preferences of the customer(s) and the video programming available during each video programming slot time. The content profiles and customer profiles are described as a collection of mathematical values representing the weighted significant of several predetermined characteristics of the video programming (see col. 10, lines 15+, col. 29, line 60- col. 31, line 24 and figures 4-5). Apparently, Herz teaches the head end 502 reads on the processor as claimed and active feedback and passive feedback read on the two set of profile data, the customer profiles stored in memory 508 read on the single combined set of profile data.

Regarding claim 2, Herz teaches the processor is adapted to generate predictions from the single combined set (the customer profiles stored in memory 508 are used to

generate agreement matrices that target program to users- see figures 1 and 5, col. 23, line 50+).

Regarding claims 3-4, Herz teaches the processor is connected to control a delivery of resources corresponding to the resource data and responsively to the predictions (the programs are selectively (and dynamically) provided to each node via a dynamic program matrix switch 604 at the head end. At the head end, the system controller 606 designates which programs are to be delivered to each node based on the customer profiles stored in collection memory 622 – see figures 5-6 and col. 44, line 2+).

Regarding claim 5, Herz teaches the at least two profile data sets include a feedback data set (active feedback) derived from ratings provided by the user with respect to a particular resource in the resource data (see col. 31, line 14+).

Regarding claim 6, Herz teaches the at least two profile data sets includes an implicit data set (passive feedback) derived from machine-observation of a user's resource use history, whereby the implicit data reflects the user's selections of resource to use (see col. 43, line 41+).

5. Claims 1-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Bergh et al. (6,112,186).

Regarding claim 1, Bergh teaches an apparatus may be provided to recommend items to a user. The apparatus comprises receiving means which receives ratings (either manually enter by the users or monitor user's environments- see col. 4, lines 20- 67) for items from user; memory element 12 for storing user and items profiles; means 14 for calculating the similarity factors between users, means 18 for assigning a weight; means 20 for recommending items to the users based on the weights assigned to the users (see figures 1-4 and col. 25, line 57+). Apparently, Bergh teaches the apparatus reads on the processor and the information collected by manually enter and monitoring user's environment read on the two sets of profile data.

Regarding claim 2, Bergh teaches the processor is adapted to generate predictions from the single combined set (generate predictions based on the user's profile- see col. 13, line 55+).

Regarding claims 3-4, Bergh teaches the processor is connected to control a delivery of resources corresponding to the resource data and responsively to the predictions (the recommending means 20 recommends items to the users based on the weights assigned to the users – see col. 26, line 23+).

Regarding claim 5, Bergh teaches the at least two profile data sets include a feedback data set derived from ratings provided by the user with respect to a particular resource

in the resource data (the user 44 asked to rate a number of items- see col. 4, lines 5-67 and col. 26, lines 63-65).

Regarding claim 6, Bergh teaches the at least two profile data sets include an implicit data set derived from machined observation of a user's resource use history, whereby the implicit data reflects the user's selections of resource to use (data collected by monitoring user's environment-see col. 4, lines 15-67).

Regarding claim 7, Berg teaches input vectors each include feature-value pairs (see col. 4, lines 15-32 and col. 19, line 29+).

Regarding claim 8, Berg teaches input vectors each include feature-value pairs and a rating value (see col. 4, lines 15-32 and col. 19, line 29+).

Regarding claims 9-16, the limitations of method as claimed respectively correspond to the limitations of system as claimed in claims 1-2, 4-8 are respectively analyzed as discussed in the rejection of claims 1-8.

Regarding claim 17, Bergh teaches the sets of profile data include feedback data set derived from rating provided by the user (user is asked to rate the item) with respect to a particular resource in the resource data; and

the sets of profile data include an implicit data set derived from machined observation of a user's resource use history (data collected by monitoring user's environment), whereby the implicit data reflects the user's selection (see col. 4, lines 5-67, col. 26, lines 62-65). Bergh further discloses when reference is made to a "domain," it is intended to refer to any category or subcategory of ratable items, such as sound recording, movies, restaurants, vacation destinations, novel, or WWW pages (see col. 3, lines 16+). Apparently, the sets of profile data includes a set of explicit profile data (category or subcategory of items) indicating express indications by a user of preferred class of programming rather than indications by the user of particular resources that are preferred.

Regarding claim 18, Bergh teaches an apparatus may be provided to recommend items to a user. The apparatus comprises receiving means which receives ratings (either manually enter by the users or monitor user's environments- see col. 4, lines 20- 67) for items from user; memory element 12 for storing user and items profiles; means 14 for calculating the similarity factors between users, means 18 for assigning a weight; means 20 for recommending items to the users based on the weights assigned to the users (see figures 1-4 and col. 25, line 57+). Bergh further discloses when reference is made to a "domain," it is intended to refer to any category or subcategory of ratable items, such as sound recording, movies, restaurants, vacation destinations, novel, or WWW pages (see col. 3, lines 16+). In addition, Bergh discloses recommended items are different to different group of users based on user's profiles (see col. 14, line 17+).

Apparently, Bergh teaches the apparatus reads on the processor, rating data entered by user reads on the feedback data set, data collected by monitoring user's environment reads on the implicit data set; data collected by user selection of category, subcategory reads on the explicit data set. Bergh also teaches the predictions including a confident level (confident factor) and the processor being adapted to combine the predictions by weight-averaging corresponding ones from each of the at least two sets (see col. 13, line 16+).

Regarding claim 19, Bergh teaches the processor is adapted to adjust weights of the weight averaging responsively to a different between the corresponding ones (see col. 11, line 52+ col. 16, lines 56-58).

Regarding claim 20, Berg discloses the profile of the user may be updated as well as the profile of the item rated, and if the new rating is a change to an existing rating, overwriting the appropriate entry in the user profile (see col. 8, lines 1-10; Bergh further discloses once a set of neighboring users is chosen, a weight is assigned to each of the neighboring user, the weights assigned to such users may be adjust according to enhance the recommendations given to the user (see col. 11, lines 36-44); and the weighted average of the rating is defined based on user's neighboring users rating (see col. 14, line 16+). Thus, when the weight assigned to each user in the neighboring users set changes, the weighted average is changed. As a result, the processor selectively

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override the weight averaging responsively to a difference between the corresponding ones.

Regarding claims 21-23, the limitations of method as claimed respectively correspond to the limitations of system as claimed in claims 18-20 are respectively analyzed as discussed in the rejection of claims 18-20.

Regarding claim 24, Bergh teaches a method comprising:

generating first profile by receiving through a user interface user preferences in the form of expressed generalized preferences corresponding classes of resources (receive demographic data of user and "domain" of interest items such as music, movies, etc. – see col. 3, line 16+);

generating second profile data by receiving user preference in the form of rating data corresponding to specific resource (user is asked to rate the item- see col. 4, line 20+);

combining the first and second profile data to produce predictions by one of:

applying the first and second profile data to respectively prediction engines and

combining respective results thereof; and

directly combining the first and second profile data to a prediction engine (The

apparatus uses the rating data entered by user, the data collected by user's

environment and demographic data to generate a predictions and provide it to user- see

figures 1-4).

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Regarding claim 25, Bergh teaches the step of directly combining includes weight averaging corresponding ones of the profile data (see col. 13, line 50+).

Regarding claim 26, Bergh teaches the step of combining respective results includes selectively weight averaging corresponding ones of the predictions (see col. 13, line 50+).

Regarding claim 27, Bergh teaches a method comprising:
forming a profile based on expressed preferences of a user (based on demographic or selection of an “domain” of a user- see col. 3, line 17+);
presenting at least one resource from a database of available resources (presenting items on the display-see col. 26, line 57+);
generating at least one suitability prediction responsively to the profile and the at least one resource (generating prediction based on item profile and user profile-see figures 1-4);
selectively accepting data from the user to modify the profile responsively to the step of generating (update customer and items profiles based on new rating entered by user – see col. 7, line 66+).

Regarding claim 28, Bergh discloses the system may have a higher confidence factor for a rating, which it inferred by monitoring multiple aspects of user behavior (see col. 4,

line 64+). Apparently, the profile is a database of explicitly-specified rules indicating preferences of the user.

Regarding claim 29, Berg teaches displaying data from the profile on which the suitability prediction is based (see col. 14, line 15+).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hendricks et al. (US 5,798,785) teaches terminal for suggesting programs offered on a television program delivery system.

Dharap (US 6,256,633) teaches context based and user profile driven information retrieval.

Barrett et al. (US 6,005,597) teaches method and apparatus for program selection.


Tuzhilin (US 6,236,978) teaches system and method for dynamic profiling of users in one to one application.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son P Huynh whose telephone number is 703-305-1889. The examiner can normally be reached on 8:00-5:30.

8. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile can be reached on 703-305-4380. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

9. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the customer service office whose telephone number is 703-306-0377.

Son P. Huynh
July 16, 2003


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